

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Please cancel claims 60 and 71 without prejudice to the prosecution of encompassed subject matter in any related continuation, continuation-in-part or divisional application.

Listing of Claims

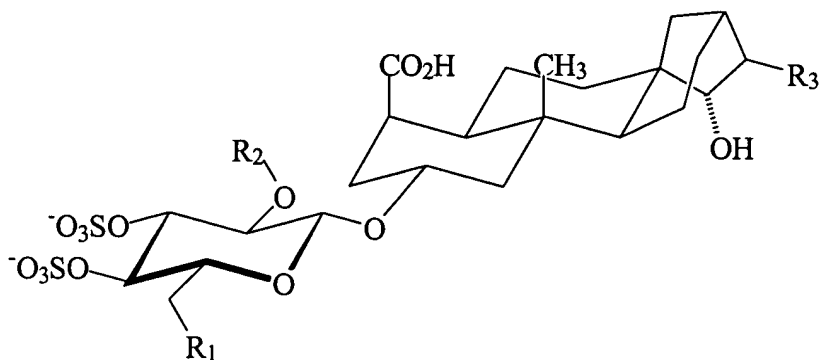
1.-57. (Canceled)

58. (Currently Amended) A method for determining the presence of a human adenine nucleotide translocator (ANT) polypeptide in a biological sample comprising:

contacting a biological sample suspected of containing a human ANT polypeptide with an ANT ligand under conditions and for a time sufficient to allow binding of the ANT ligand to a human ANT polypeptide; and

detecting the binding of the ANT ligand to a human ANT polypeptide, and therefrom determining the presence of the human ANT polypeptide in said biological sample,

wherein the ANT ligand comprises ~~atractyloside substituted at 6' hydroxy to form an atractyloside derivative~~ an atractyloside derivative having the following structure:



and stereoisomers and pharmaceutically acceptable salts thereof.

wherein

R₁ is halogen, -OC(=O)R₄ or -NHR₄;

R₂ is hydrogen or -C(=O)R₅;

R₃ is -CH₃ or =CH₂;

R₄ is -X-arylalkyl, -X-substituted arylalkyl, X-heteroaryl, or -X-heteroarylalkyl, wherein X is an optional amido or alkylamido linker moiety; and

R₅ is alkyl.

59.-63. (Canceled)

64. (Currently Amended) The method of claim 58 wherein the atractyloside derivative is detectably substituted at the 6' hydroxyl to form a detectable atractyloside derivative.

65. (Original) The method of claim 64 wherein the detectable atractyloside derivative comprises a radiolabeled substituent.

66. (Original) The method of claim 65 wherein the radiolabeled substituent is selected from the group consisting of ¹²⁵I, ¹³¹I, ³H, ¹⁴C and ³⁵S.

67. (Original) The method of claim 64 wherein the detectable atractyloside derivative comprises a fluorescent substituent.

68. (Original) The method of claim 67 wherein the ANT ligand further comprises a Eu³⁺ atom complexed to the atractyloside derivative.

69. (Original) The method of claim 64 wherein the detectable atractyloside derivative comprises covalently bound biotin.

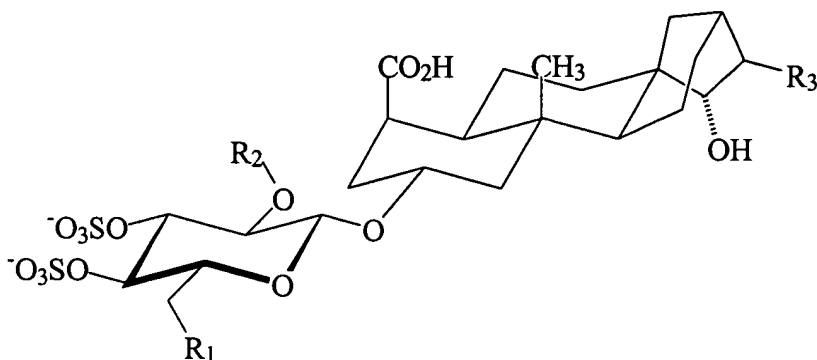
70. (Currently Amended) The method of claim 58 wherein wherein R₁ is -NHR₄ ~~the atractyloside molecule is substituted at 6' hydroxyl with an amine or an amine containing functionality to form an amine modified atractyloside derivative.~~

71. (Canceled)

72. (Currently Amended) A method for isolating a human adenine nucleotide translocator (ANT) polypeptide from a biological sample, comprising:

contacting a biological sample suspected of containing a human ANT polypeptide with an ANT ligand under conditions and for a time sufficient to allow binding of the ANT ligand to the human ANT polypeptide; and

recovering the human ANT polypeptide, and thereby isolating human ANT from a biological sample, wherein the ANT ligand comprises an atractyloside derivative having the following structure:



and stereoisomers and pharmaceutically acceptable salts thereof,

wherein

R₁ is halogen, -OC(=O)R₄ or -NHR₄;

R₂ is hydrogen or -C(=O)R₅;

R₃ is -CH₃ or =CH₂;

R₄ is -X-arylalkyl, -X-substituted arylalkyl, X-heteroaryl, or -X-heteroarylalkyl, wherein X is an optional amido or alkylamido linker moiety; and

R₅ is alkyl.

73. (Original) The method of claim 72 wherein the ANT ligand is covalently bound to a solid phase.

74. (Original) The method of claim 72 wherein the ANT ligand is non-covalently bound to a solid phase.

75. – 112. (Canceled)